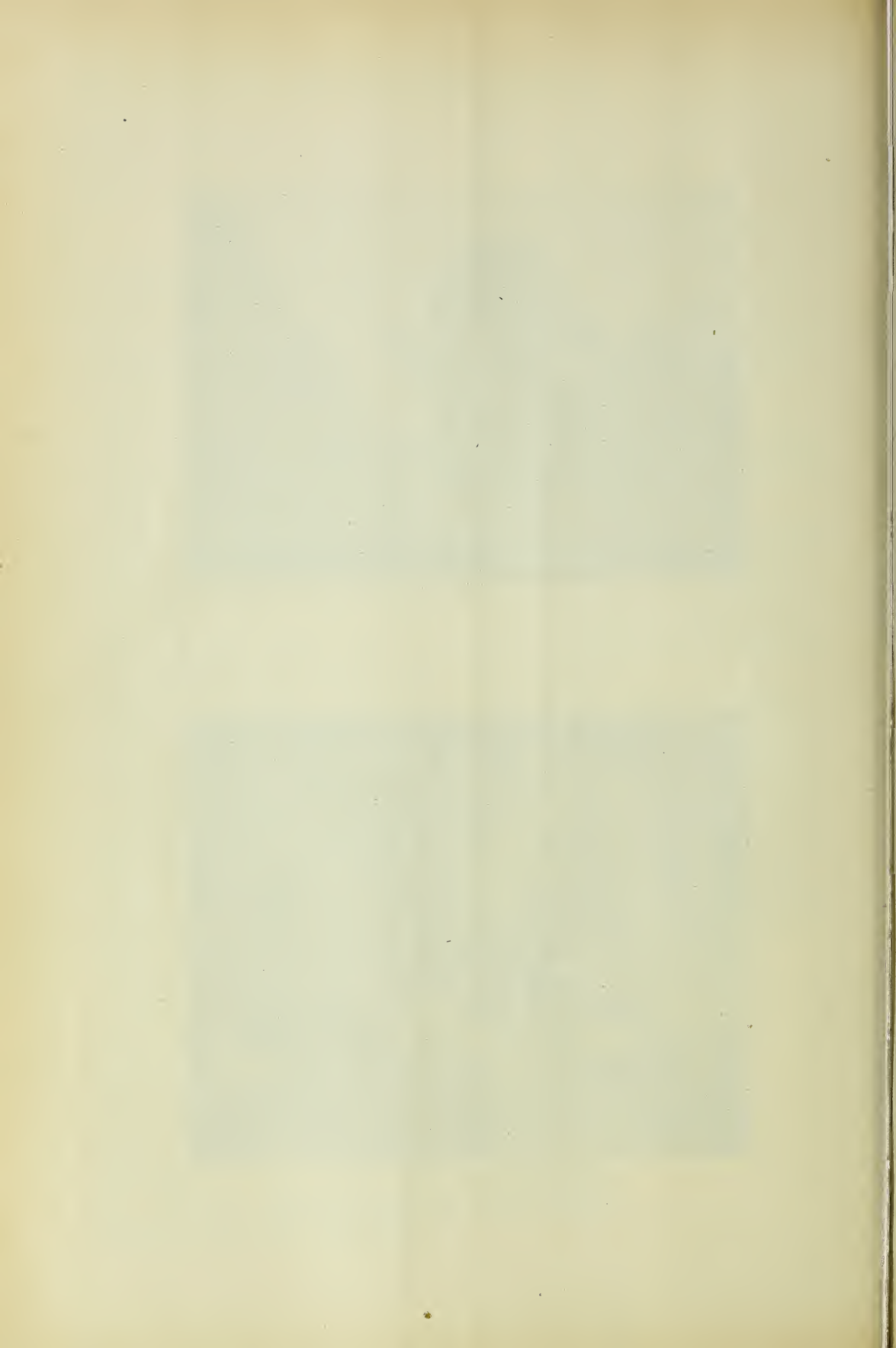


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## EDITORIAL.

There seems to be a general awakening to the fact that the Agricultural College as well as the University as a whole, needs much larger support. People are just coming to realize the exact relation which this institution bears to the state. Farmers especially are beginning to see that the Agricultural College is a very important factor in the state's agricultural development, and one that is securing far too little support.

One thing, however, is especially noticeable, and that is the utter lack of any organized effort among our agricultural alumni to aid in this attempt at securing recognition. To be sure, the University alumni as a whole are doing not a little in this work, but with the Agricultural College, representing as no other college of the University does, the people of the state, and considering the fact that over five hundred ex-students and graduates have gone out from the institution, the power that these men could legitimately exert would be very great. Everyone realizes the difficulties which the University must meet in securing its needed support, due to the in-



fluence of the large number of denominational schools in the state. In this the Agricultural College unfortunately, yet wrongfully shares. Granting that these smaller institutions have a legitimate contention, which we assert they have not, there is no reason why our Agricultural College should suffer, when it is the only place in the state where instruction in agriculture is given.

There are, of course, matters of method and diplomatic features concerning the securing of legislative recognition in which this matter is necessarily involved, but if our body of alumni and ex-students should assert themselves in this matter and if the farmers of the state should make proper demand for the development of the Agricultural College, these matters could be adjusted. And while we do not wish to see the Agricultural College developed to the detriment of the University as a whole, we do affirm that the time is ripe for the College of Agriculture to receive just as much consideration in Ohio at the hands of the legislature as such institutions are receiving in other states. We again appeal to the alumni and ex-students of the college to bring every possible influence to bear upon legislators and those of influence, to place the college in the position which it should hold:

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The recent meeting of the Agricultural Student Union emphasized two facts. First, that the Union has accomplished a great deal within the last few years; second that the body of agricultural students who have gone out from the college do not appreciate the advantages it offers, nor the possibilities it holds.

The work which the Union has accomplished, while in itself of great value, is much more important from the

fact that it has brought the experiment station and the college of agriculture to see the possibilities inherent in such a movement. As mentioned elsewhere in this issue, the division which was effected in the work, and the support which these above named institutions have pledged, will insure far greater accomplishments than the Union as organized ever could accomplish on the basis of gratuitous labor. Too much credit can not be given to the Union and those in charge for this success. Were the Union never to accomplish more, the work which it has started will, under the guidance of these sister institutions, accomplish wonders for the agriculture of the state. To one man far more than to any other is the credit for this work due—Mr. L. H. Goddard, Director of the Division of Agriculture, whose untiring efforts have made the Union what it is today. We therefore deem it but proper that his work should be acknowledged in this public way. His intense enthusiasm and remarkable energy have brought the results.

As to the lack of interest shown by many of our ex-students, we should venture one or two bits of explanation. First, it is probable that most of them are not yet owners of farms and consequently have not the freedom of action in this matter that they wish; second, it takes time and energy to bring success to any organization and only the few will be enthusiastic until some success has been achieved; third, the students who have gone out haven't been sufficiently impressed with the possibilities of the work. But time for doubting is past, and the work is receiving plenty of recognition. It simply remains for these men to become active experimenters and helpers as their circumstances will permit.



We trust that our body of ex-students will quickly come to realize the advantages of active affiliation with this work. The agriculture of the state demands their help if it is to make proper progress.

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The address of Professor Graham at the recent meeting of the Agricultural Student Union has been the subject of no small amount of favorable comment. The work that Professor Graham has started in the Clarke county schools has been frequently referred to in these columns, but the value and possibilities of the work were never so clearly portrayed as in his presentation of the matter at this meeting. This work must be extended if we are to make the most of our opportunities. There is a demand for it and the plan is one that appeals to every thinking man, for it is through the young in our rural schools that we shall be able to accomplish the most lasting results. The action of the Agricultural Student Union in dividing its work, now throws the responsibility of the development of this plan entirely upon the College of Agriculture. The early establishment of a division of the college work having to do with agricultural extension will be the solution of the problem. This will take money and time, but it must be done if we are to do our full duty. Therefore let all those who are interested in the agricultural development of the state do all in their power to secure to the college that support which is necessary if this most valuable work is to be established.

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#### **State Farmer's Institute.**

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The Ohio State Farmer's Institute held its annual session on January 12 and 13 in the auditorium of the Columbus Board of Trade Building. All ses-

sions were well attended and the general comment was that it was the best institute that the farmers of Ohio have had the privilege of attending. The program was composed of papers on matters of interest to every thinking farmer and these were discussed by men and women who have shown themselves masters of the situation. The addresses were interspersed with music by the Williamson Sisters' Quartette of Columbus.

The first session of the institute was very fittingly opened by an address on "Some Problems in Ohio Agriculture," by Prof. Homer C. Price, Dean of the Agricultural College, O. S. U. "Corn Breeding by the Farmer" was discussed by L. H. Goddard, who explained a method by which any careful farmer might carry on an experiment of his own in corn breeding and secure a variety which is best adapted to his conditions and which will yield the goal desired—the highest number of pounds per acre. "The Growing of an Orchard" and "The Handling of the Fruit" was discussed by W. I. Chamberlain who has had much experience in both. He says that much depends on the location, both as to soil drainage and frost drainage. He advises fall planting of trees, cultivation for about five years and then clovering or mulching with occasional cultivation.

D. A. Crowner spoke on "Associated Dairying," Prof. A. D. Shelby, on "Certain Ohio Soil Problems" and D. Ward King of Maitland, Mo., described his system of making and maintaining good earth roads.

A factor which added much to the merit of the institute was the addresses given by Mrs. J. W. Bates, of Broad Ripple, Ind., on "Home Making as a Fine Art" and "The Social Rights and Duties of Farmers."

The work in the course in Domestic Science at O. S. U. was described by Miss Minnie Stoner.

Dr. Thompson, of the University, spoke at length on merits of the College of Agriculture and Domestic Science and showed how the equipment of the college had not been increased in proportion to the rapid growth of the college and appealed to the people of the state that this matter be given its due consideration and the proper funds appropriated so that the growth might not be retarded.

The officers as chosen for the institute for next year are A. L. White, president, and Lowell Roudebush, vice president. W.

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#### **Meeting of Agricultural Students' Union.**

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The recent meeting of the Agricultural Students' Union, held at the University January 15, was by far the most interesting and profitable meeting ever held. A bold stroke was made in attempting to hold an all-day session after the down-town meetings had closed and it was a decided success. And while there were not as many ex-students present as there should have been the number was about the same as last year.

The morning session was devoted to the general work of the Agricultural Students' Union. Dr. Thompson gave a very encouraging talk on the Possibilities of Agricultural Experimentation and Agricultural Extension as Related to the Students' Union. This was followed by an address by Professor A. B. Graham, of Springfield, O., on "Agricultural Clubs in Rural Schools." Professor Graham has been conducting a boys' and girls' experimental club during the past year with remarkable suc-

cess and his treatment of the subject was most entertaining and profitable. He spoke of the necessity for extending agricultural instruction outside of the agricultural college, and of the methods and means of so doing.

The paper was followed by a most spirited discussion on the subject, in which its various phases were treated very thoroughly. The possibilities indicated for Ohio in Professor Graham's address by some such method as he has instituted are indeed very great.

Following this was a very instructive paper by President A. D. Selby, on "Some Relations of Agricultural Investigation to Agricultural Progress," with a discussion on the subject. The session closed with reports of directors for the past year. Mr. L. H. Goddard reported unparalleled success in the work of his division stating that the work had grown far beyond the possibility of management under the present methods, that he no longer appealed to people to take part in the work, but simply put the work before them and allowed them to choose. The directors of the divisions of Horticulture and of Soils reported favorable progress. The directors of Dairying and Agriculture were not present to report, but sent statements of the work done during the year.

The afternoon session was devoted entirely to the subject of corn. The major paper was by Professor H. C. Price on "Corn Breeding." This was followed by a discussion of the various phases of the subject. Professor Alfred Vivian talked on "Protein Corn." Mr. L. H. Goddard on "Details of Field Management in the Breeding Plot," and Professor A. D. Selby on "Methods of Selection." A large number of representative corn growers were present and the discussion which followed these

presentations was extremely interesting and valuable.

In connection with this section there was held an exhibit of corn by the experimenters who had conducted the corn variety test during the past year. At the close of the session the judges reported their findings as to the merits of the different samples exhibited. M. F. Miller explained in detail the use of the score card in corn judging and exhibited the samples which had scored highest. Owing to the poor corn season which Ohio experienced during the past summer the samples were not as numerous as had been anticipated, but a great deal of interest was manifested. The successful contestants will have their corn samples tested at the experiment station the coming year.

At the close of the afternoon session a business meeting was held, future plans for the Union were discussed and a report of the executive committee on future management of the Union was read. This report recommended the division of the work into two distinct lines, namely: Agricultural Experimentation and Agricultural Extension work. The work of the Union has grown far beyond the possibility of gratuitous services, and some plan was necessary to meet the emergency. This plan had been carefully worked out and met the instant approval of all present.

The plan is as follows: The work of agricultural experimentation shall hereafter be under the direction of the Agricultural Experiment Station, which shall furnish funds and a salaried director to conduct the work. The work of agricultural extension shall be in the hands of the University authorities and subject to their direction, both lines of work being co-ordinated and unified by the Agricultural Students' Union, which shall act as an advisory board in all

matters relating to these two branches, and further whose office it shall be to hold annual meetings of the ex-students and graduates of the Agricultural College and others who are interested, to discuss matters of importance to both these institutions and to the agriculture of the state.

It is the opinion of all those concerned in the work that this plan is the most feasible that could have been adopted and the possibilities which lie in both branches of work are very large. The following officers were elected for the ensuing year: President, M. F. Miller; Vice-President, C. W. Waide; Secretary-Treasurer, V. H. Davis.

In the evening a luncheon was served down town at which between sixty and seventy were present and a most enjoyable evening was spent. Mr. A. D. Selbv acted as toastmaster and several responded to toasts.

The meeting as a whole was pronounced a decided success and the future of this work, especially under the new regime, is conceded to be most promising.

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#### **Plant and Animal Breeders' Association.**

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The organization of the American Breeder's Association at the recent science gathering at St. Louis is a distinct step in advance in scientific agriculture. The subject of plant breeding is thus brought forward to a position coördinate with that of animal breeding where it justly belongs, and the union of these two bodies of men into a single organization indicates an appreciation of the close relationship that should exist between them. There is much to learn as to the most vital principles underlying these two lines of work, princi-



ples that are common to both, and the uniting of efforts under the guidance of the American Association of Agricultural Colleges and Experiment Stations will surely mean much in the furtherance of both lines of work. The objects of the association are to study the laws of heredity, to devise better methods of breeding plants and animals, to bring about coöperation in breeding, testing and increasing the use of improved animals and plants, to better develop the work of registry associations and competitive shows of animals and plants; in general to perfect the knowledge of breeding and to aid in the better organization of the business of plant and animal breeding.

The meetings will be held annually at the time of the regular Agricultural College and Experiment Station Association meetings and the programs will consist of papers and discussions of principles underlying the subject of breeding.

The following officers were elected: President, Hon. James Wilson, Washington, D. C.; Vice-President, Hon. L. H. Kerrick, Bloomington, Ill.; Secretary, Prof. W. M. Hays, St. Anthony Park, Minn.; Treasurer, Prof. Oscar Erf, Manhattan, Kan. Dr. H. J. Weber, U. S. Department of Agriculture, was elected chairman of the plant section, and Hon. John Dryden, Minister of Agriculture, Ottawa, Canada, chairman of the animal section.

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### **The Inter-Collegiate Judging Contest.**

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After a delay of about a month, due to conditions apparently beyond control, the awards in the students' judging contest were declared late in December. The cause of the delay was as follows:

Col. C. F. Mills was appointed to superintend the students' contest. This he did, apparently arranging all the details. However, each class of animals judged was placed by an expert judge, and it was necessary for these men to pass on the papers submitted by the students and grade them. This work was all done at the exposition, excepting that relating to sheep. Mr. Beattie, the sheep judge, got away into Canada before it was expected and consequently the papers on sheep had to be sent him for examination. After a most inexcusable delay of weeks, these papers were returned to Chicago, after which the awards were fairly promptly made.

The Spoor Trophy was won by the Iowa Agricultural College. The five students from this college graded a total of 375¼ points. Ohio State University ranked second with 351¼ points, Minnesota third with 348 and Kansas fifth with 325. This year for the first time the statement is made in the Chicago press that inasmuch as the Iowa College students have now won this trophy three times in succession, it becomes the permanent property of that institution. It is a matter of interest to the writer to know from whom this statement emanates. So far as I am aware, this season is the first time that it has been made public that winning the trophy three times secured its permanent possession.

Messrs. A. H. Sanders, editor of the Breeders' Gazette and John Clay, Jr., of Clay, Robinson & Co., live stock commission men, Chicago, have jointly subscribed \$500 to be divided among the 12 men ranking highest in the contest. As the writer now recalls, 28 men took part in the contest. The highest cash prize was \$100 the next \$75 and so gradually scaled down.



The standing in the cash competition, as expressed in points, was as follows:

C. E. Howard, Iowa Ag.	
College .....	80½ points.
C. G. Ellinor, Kansas Ag.	
College .....	80¼ points.
W. A. Tener, Iowa Ag.	
College .....	79¼ points.
C. D. Stewart, Minn. Ag.	
College .....	75¾ points.
John Miller, Balsam,	
Ontario .....	75¼ points.
D. W. Weist, Ohio State	
University .....	75 points.
A. S. Neale, Ohio State	
University .....	74 points.
W. H. Palmer, Ohio State	
University .....	73¼ points.
R. E. Tyson, Minn. Ag.	
College .....	72¾ points.
E. A. Stout, Iowa Ag.	
College .....	72½ points.
H. B. Ellenberger, Iowa	
Ag. College ....	71¾ points.
F. M. Hausen, Iowa Ag.	
College .....	71½ points.

Without going into details, considering the rank of each man in the several colleges, it will be appropriate to give those of the students from the Ohio State University, which were as follows:

D. W. Weist, 75, won .....	\$40 00
A. S. Neale, 74, won .....	35 00
W. H. Palmer, 73¼, won .....	30 00
W. T. Florence, 68, .....	
J. C. White, 61, .....	

The general results of the 1903 contest were unsatisfactory to most of the colleges competing, not because of Iowa's success in winning the Spoor Trophy, but because of the vexatious delays in administering the contest. The contest has meritorious features which can not be ignored, but until the conditions under which it is conducted can meet with the cordial support and approval of college instructors in ani-

mal husbandry, it will not accomplish its purpose. The contest of 1903 was conducted under conditions which justify severe criticism, yet which need not be a part of this communication. Suffice it to say that in consideration of the time and attention given to the subject of judging, the students of the Ohio State University participating in the Chicago contest made a record as a whole that was all and even more than could have been expected, when compared with the time and effort given by other colleges. Our students had but one afternoon a week for two terms, with a break of six months between this work and the Chicago show, during which the O. S. U. contestants received almost no substantial assistance from the instructor. In contrast to this the students of the Iowa college received much more work in the regular course, and also received very considerable attention from the instructor in animal husbandry in that institution. It is to be hoped that these contests will be continued, but under conditions that will meet with more favor from the institutions interested.

C. S. PLUMB.

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### The Short Course in Agriculture.

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Short courses are receiving special attention in the agricultural college world this year. Two weeks or ten days seems to be the limit and the advertising some of these courses are receiving is astounding. Iowa, Indiana, Wisconsin and Nebraska are among the number to take up the plan, and Illinois is doing what is virtually the same thing, holding a ten-days' agricultural convention.

The gathering in Iowa is termed a short course and covers a couple of

weeks. The time is devoted largely to corn and animal industry, with some work in farm mechanics and farm drainage. Corn and cattle judging are the special features. The Illinois convention is one of corn growers and stockmen, so here again the judging of corn and stock come in for a large share of the time. The Wisconsin course is not very different from these, while the work in Nebraska is divided into two courses, one having to do with stock judging and one with corn judging. These features are especially popular with the farmers and are valuable as means of securing the farmer's attention. Much time and care has been spent in preparing for these meetings and in some cases a great deal of money has been used in advertising.

As these institutions are among the largest in the country it would seem that there was some relation between the size of the institution and this method of instruction. But whether the size of the institution is the result of such plans of advertising or whether such a plan is resultant from the size and efficiency of the institution is debatable. Probably each is more or less dependent upon the other. The college that is characteristically "short course" in its ideas will necessarily receive more advertising than the one which looks primarily to the building up of a thorough system of instruction. In the same way it will receive more students because of its low requirements for admission. On the other hand, there is a tendency among colleges that are giving their energies to building up long courses, to become too conservative and thus fail to reach the masses as they should. The short course has its place, just as surely as does the long course, mainly as a means of advertising and of getting in touch with the farmer, and in

this it appears that a ten days' course is much more efficient than one of ten weeks. The idea isn't to teach the farmer; it is rather to teach him very little and set him to thinking very much. In this the course is a success, and the advertising derived from the proper management of such a course is of infinite value.

The extent to which this should be carried, however, is the question to be decided. A proper amount of advertising is legitimate and a certain degree of popularization of the work of the college is essential, but the methods by which this may best be brought about may vary. Ohio State has never felt herself in position to do any great amount of special advertising, nor yet seek extreme simplification of the work for a two weeks' course. She has been conservative along this line, very much so; and while conditions have had much to do in establishing this idea, nevertheless the fact remains that we are not reaching the farming class as we should. The time for extreme conservatism is almost past, and if we would make the most of our opportunities we must get in closer touch with the farmer. Whether this be through the short course, the agricultural press or the rural schools is a question yet to be settled. Probably we are somewhat prejudiced toward the rural school work, but it is evident that while this means strikes at the foundation and must eventually be the plan followed, there will be no immediate returns. We should get into closer touch with the farmer at once; the agriculture of the state demands it. The method suited to Ohio conditions is the one we must seek.

### **Iowa Agricultural Union.**

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A meeting of alumni and ex-students of the Iowa Agricultural College held at Ames, January 8, resulted in the formation of the Iowa Agricultural Union, an organization exactly similar to our own Student Union. Its objects as formulated are "to gain the inspiration of fellowship and promote interests which result from close coöperation in the field of agriculture in its broadest sense; to conduct experiments in coöperation with the state experiment station and collect data upon agricultural problems; to endeavor to stimulate and secure the interest of the farmers of the state; to disseminate knowledge among its members and others who are interested; to meet at least once annually to report upon the work of the past year and to discuss topics of mutual interest."

This is the second or third organization of like nature that has been recently formed and the possibilities for effective work by such means are becoming appreciated. A wide awake body of alumni and ex-students of an agricultural college can become a power in any state. Such organizations are therefore highly commendable.

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### **The Nature Study Movement.**

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The address of Professor L. H. Bailey, of Cornell University, before the last meeting of the Ohio Educational Society, is one of the most noteworthy of that remarkable man. "The nature study movement," he says, "is the outgrowth of an effort to put the child into contact and sympathy with its own life." It is strange that such a movement is necessary. It would seem the natural and almost the inevitable, thing that the education of the child should be such

as to place it in intimate relation with the objects with which it lives. Our teaching has largely been exotic to the child, taking it away from its natural environment. The teaching in our elementary schools is a reflection of old academic methods. The ladder of learning was let down from above, as it were, when it should have stood on the ground.

The crux of the whole subject lies in the conception of what education is. In theory it is one thing, in practice another. We have come to associate it with certain definite subjects as if no other sets of subjects could be made the means of educating a mind. One by one new subjects have forced themselves in as being proper means for educating. Now any subject when put into pedagogic form is capable of being the means of educating a man, whether it be Greek or Indian corn, classics or calculus, machines or potatoes. Culture is the product only of efficient teaching, whatever the subject matter. What a man is, is more important than what he knows. It is the end of education to prepare the man or woman better to live. The most important means then, with which to begin this educational process, are those subjects which are nearest the individual. Common subjects are the natural, primary, fundamental necessary subjects. Books are only secondary means of education. We have made them primary, but we are rapidly correcting this mistake and as they are relegated to their proper sphere we shall find ourselves free to begin with the familiar end of familiar things. Start with a child's sympathies, lead him out and on. Develop the child, not the subject. We are not training specialists, but are developing the power that will enable the pupil to get the most from his own life.



A young man who has spent all his time in a school room is usually hopelessly helpless when he runs against a real circumstance. This is remarkably illustrated in the farmer boy who will turn his hand to twenty things where a city boy will turn his hand to one.

If you are to interest children or grown-ups either you must begin by teaching things that touch their lives. Where there is one person interested in philology, there are a hundred interested in engines and wheat. From the educational point of view neither the engine or wheat is of much consequence, but the men concerned are immeasurably important and must be reached.

We must distinguish sharply between the purpose of nature study and its methods. Its purposes are best expressed in one word, sympathy. It is not natural history, nor biology nor even elementary science. It is an attitude, a point of view, a means of contact. It is not a study nor the addition of more work to a curriculum; it has to do with the whole point of view of elementary education and is therefore fundamental. It is the full expression of personality, the practical working out of the extension idea and more than any other recent movement it will reach the masses and revive them. In time it will transform our ideals and then our methods. The result of all this change of view I like to speak of as a new thing. Of course there is no education that is wholly new in kind, but this determination to cast off academic methods and put ourselves at the child's point of view is sure to be so far reaching in its effects that it can well be called the "new education." It is a revolt from the too exclusive science teaching point of view, a protest against taking the child first of all out of its own environment. It is

the product of the teaching of children in the elementary schools, and the means and methods of nature study are as various as persons who teach it. There is no one subject and no one method that is best.

In time the methods of teaching nature study will crystallize and consolidate, naturalness, resourcefulness, and quick-movement itself is well under way. It will persist because it is vital and fundamental. It will add new value and significance to all the accustomed work of the schools, for it is not revolutionary but evolutionary. It stands for renewed interest in the common and essential things of life. We talk much about the ideals of education, but the true philosophy of life, is to idealize everything with which we have to do.

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#### **An Agricultural Correspondence School.**

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In these days of the extreme development of our mail system there is a noticeable increase in the demand for education by correspondence. Almost every technical line is thus reduced to a correspondence plan. In this, agricultural instruction is sharing. There have been departments of correspondence in many of our agricultural colleges for some years, but the private school of correspondence dealing only with agriculture is a late development, and the establishment of such a school at Sioux City, Iowa, has caused no little comment.

The plan is not dissimilar to that of other correspondence schools in many respects, although it involves some new features. The instructors in the work include some of the most prominent agricultural college men in the middle west, and the courses offered are quite complete. The plan is to have these

instructors prepare texts on their special subjects which are mailed to the students piece by piece in pamphlet form, accompanied by a series of quiz questions which the student answers and returns for correction. Courses are offered in Agronomy, Animal Husbandry and Veterinary Medicine, and judging from the printed announcements all are quite complete.

The whole plan is in strict accord with the spirit of the times and shows that agriculture is holding its own with other vocations in this rapidly advancing commercial age. The progress of the college will be observed with interest.

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#### **Alfalfa as a Permanent Pasture in the Ohio and Mississippi Valley.**

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Alfalfa being a legume, it is one of the most valuable hay crops wherever it can be grown and cured. It can be grown on some land in almost every country where there is enough moisture to grow other grasses, from the Allegheny to the Rockies south of latitude 42° and north of 35°.

It should form a part of the permanent pasture, owing to the large amount of nitrogenous food and its ability to withstand dry weather. It is not well to have all of the fields to be used for pasture in alfalfa, but two-thirds to three-fourths alfalfa and the remainder blue grass, timothy or any of the common grasses. When the whole field is alfalfa the stock seem to get tired of it and go around the fence trying to get some other kind of grass. They are that way with any kind of legume. I have seen cattle and sheep on red clover knee high, trying to eat the June grass along the fence out by the roots. I believe that after three years' experience that one acre of alfalfa will produce as much feed in a dry season as three

acres of June grass or timothy. In preparing an alfalfa field for pasture, I plow the ground and work it down and sow the seed the same as for meadow. Do not pasture the first season, but clip several times with the mowing machine.

I pasture all kinds of live stock on my field. No difference what kind of weather we have during the summer, the alfalfa is always green and furnishes good food during all of the dry weather.

Some ask about bloat in cattle and sheep. I think it is no worse than red clover. Last season was a very wet one and I had thirty-four head of large cattle on my alfalfa field and never had a case nor did I ever have on red clover, when the cattle were left on from start. When I first turn on, I put them on in the evening after the cattle have had good feed all day and never allow the cattle to be without salt.

When pasturing alfalfa never practice turning on a few hours at a time. When turning on leave the cattle on all the time. We tried pasturing our alfalfa here at the University this fall, after the third crop of hay, by herding in the afternoon but had trouble with bloat. I do not know, perhaps red clover would be the same in that respect.

I have sixteen acres of alfalfa and twelve acres of timothy and blue grass mixed in the field and we turned on the eighth day of May the following stock: Twenty-eight head of yearling cattle, weight 700 pounds; thirty head of pigs, to be fed off the first of August; seven yearling rams and four horses. It was very dry during May and I thought I would have too much stock. The first of June the rains came and timothy grew so that the eighteenth day of June I turned on twenty-five head more cattle the same size as the others and they all were doing well the seventeenth day of July,

when I let them on an adjoining field, where the clover had been cut off of part and a part remained for the cattle.

This is the third season I have pastured this piece and it is as thick now as ever. In fact, it is thicker than an adjoining field that has been cut for hay. One important thing is never to allow the stock on the field when the ground is soft. I never turn on in the spring until danger of frost is past and the ground is well settled. After the heavy rains, when the ground is soft enough for them to step in, I put all heavy stock off until the ground settles. In the fall, everything is taken off before any hard frosts or wet weather comes. I think that in this way, I will have a pasture that will last for ten years or more. If it will not last for more than three years, it is the cheapest pasture I have, owing to the large amount of feed I get each season.

I think cattle do better on alfalfa pasture than on pasture made from our grasses and it is one of the things we are looking for.

Some of the good points of alfalfa pasture are: It comes early in the spring, withstands dry weather better than grasses, keeps green all season, makes a large amount of feed per acre, is liked by all kinds of farm animals and can be made into hay if it gets the start of the animals pasturing on it.

FRANK RUHLEN.

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### The Correspondence Idea.

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Farming used to be just farming; now it is a business. Muscle is all right for the man who is content to be "just a farmer." The business farmer, though, must use brains as well as brawn. To the extent that he applies business principles to the business of farming, in that degree will he increase his profits.

Every one runs his farm to make money and anything that will enable him to make more money deserves attention. There is more need today for the thorough business farmer than ever before. Competition is becoming greater, therefore a larger amount of knowledge must be displayed in order to be successful. The great question then is how is this knowledge going to be obtained?

Perhaps you are not situated so that you or your son can attend an agricultural college to learn what are the best methods. If you are, the proper thing to do is to attend one; but if not—why not bring the school to your home?

We are living in an age of rapid transit. The fast mail whirls letters to every part of the country in a few hours time. A letter written tonight is answered tomorrow. Correspondence becomes almost a conversation because of the swiftness of our mail service. Because of these conditions an education is made possible in one's own home; very satisfactory instruction can be had by anyone where there is a post-office. Law, medicine, engineering, languages, architecture and many other professions are being successfully taught by mail. This is the era of the correspondence school.

It has been made possible through the Correspondence Agricultural College to receive in part, the benefits that you would receive by going to college. To the farmers more than anyone else should the correspondence college appeal. In other schools the student often branches out into a field of which he knows nothing. He has it all to learn, and it's all new. Not so with the farmer. He simply trains himself farther along lines already familiar. Then why should not every farmer who



possesses an ordinary education become interested in the correspondence work done by our agricultural colleges?

G. FOSTER.

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**Agricultural Education at Mt. Hermon.**

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An item of more than common interest, is the introduction of agriculture in the course of the Mt. Hermon school established by Moody in Massachusetts. This school is located on the banks of the Connecticut river in a rough and hardy portion of western Massachusetts. It now possesses a farm of about 1000 acres, and recently Professor Harry Hayward, a graduate of the school, and also educated at Cornell, became superintendent and instructor in agriculture. For some years Mr. Hayward was Professor of Dairying in Pennsylvania State College and was recently Associate Chief of the Dairy Division of the United States Department of Agriculture.

It is proposed to give a course of instruction in the elements of agriculture and also in animal husbandry. A herd of Holstein Friesian cattle has been secured and modern dairying will be conducted. The barns have been improved, electric lights placed therein, and the stables are to be educational factors. Attention will be paid to the breeding of horses, and already a small flock of pure-bred sheep has been secured. An old poultry plant has been reorganized and a select lot of fowls added to the plant.

One interesting feature of the school will be to establish a forestry plantation of some 200 to 300 acres, this amount of the school land already being in timber. This will be surveyed and placed under forestal conditions on the advice of an expert of the U. S. Department of Agriculture, who will survey the

field of work. Unquestionably the future field for forestry work in New England will greatly enlarge. Great areas of land can today be purchased in New England for a mere trifle, that are quite suited to forestry cultivation and not much else.

Orcharding has for some time met with favor at Mt. Hermon. In 1902 some 1000 barrels of apples were harvested, and in 1903 about 600 barrels. An expert in horticulture is to be employed, and courses will be given in this branch, and additions will be made to the apple, pear and plum orchards, and to small fruits.

In 1903 the canning department produced 1200 to 1500 gallons of tomatoes, 220 of apples and 200 of berries. These products are not only used in the school dormitories, but are exchanged for groceries.

This school, situated among the hills of Massachusetts, is taking up a new and desirable field of education for the secondary schools. From here the graduate should go to the State Agricultural College to continue the higher work leading to a degree. It is to be hoped that this institution will meet with much success in its work.

C. S. PLUMB.

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**Domestic Science and Its Value.**

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It is a mistake to speak of introducing Domestic Science with the determination of establishing a cooking school or to turn the course into a succession of manual training exercises; Domestic Science has reached a dignity and importance far beyond that. We are now turning towards the science, recognizing its importance to the health of the nation, its cultural value, both practical and educational.

The definition of education means not only the development of the mind, but the directing capacity of the mind to fit men and women to take their places in the actual daily living, that befalls them.

The development of every new art is the development of brain power, but it is necessary to develop both the motary and sensory parts of the brain else the training is one sided. Very often this is the case. There is a tendency to develop the sensory and neglect the motary.

Froebel says, "Education is not a pouring in of knowledge but the development of powers and abilities."

Knowledge is an excellent thing but it is far better to have the skill to apply that knowledge.

To know what to do is important but to hit the nail on the head, it is important to know the same thing and in addition to have the skill to do it..

Domestic science is the application of sciences, psychology, physics, chemistry, biology, physiology, to the problem of home life. It deals with the study of home itself, its evolution, its functions; with problems of the family; with architecture and decoration of house and sanitary conditions which effect its inmates; with the whole great food problem and with clothing in its hygenic and aesthetic aspects.

The education of a young woman is no more complete without training along these lines of domestic art, and the underlying sciences, than is the education of a young man without training in the practical arts of life. Since the outgrowth of this conviction, departments of Domestic Science have been established in many of our best institutions, and since the majority of young women will be home makers, this subject is of paramount importance.

Through this training which did seem drudgery we are making an attractive, very useful and elevating art.

A. E. B.

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### Dairy Notes.

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The Dairy School which opened the fifth of January is doing well. The enrollment is 36 students, which is less than last year, due to the changing of the course, making it a two year course instead of one. There is only one second year man, Samuel Arney, of Lancaster, O.; the rest are first year men. All are taking hold of the work well and Prof. Decker expects a very profitable term.

The laboratory is well equipped and a great deal of new machinery has been added. There has recently been received a Twentieth Century Farrington Milk Heater and Disk Pasteurizer and a Reid's Pasteurizer and Cooler with a capacity of 2000 lbs. per hour.

Mr. John Parkinson, of the class of '03, is assisting Mr. Herrick in cheese making.

R. C. E. Wallace, E. D. Holl and E. E. Finney are student assistants in the laboratory.

Prof. Decker attended the Vermont Dairymen's convention recently and while there visited the university. The convention was well attended and at its close a banquet was held at which 333 sat down and a good many were unable to get seats. About 40 agricultural students were seated together at one table and amused the banqueters with their yells and songs.

The large machinery room at the north end of Townshend Hall has been temporarily cleared for the exhibits of dairy apparatus at the Dairymen's convention.

### The Importance of Corn.

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Corn that has won prizes aggregating \$6,700 will be one of Missouri's offerings to the universal corn display that will be a feature of the agricultural exhibit at the World's Fair.

There are 114 counties in the state, and the Missouri World's Fair Commissioners have arranged for the holding of a corn show this fall in each county. Prizes aggregating \$50 are offered for the best 20 ears of white, yellow and mixed corn. After the last county show shall have been held, a state corn show will be held in St. Louis. Here the prizes will aggregate \$1,000. There are 10 prizes, ranging from \$100 down to \$5 for the best 100 ears of white and red corn. For the best display of different kinds of corn—white, yellow, red, calico, flint, sweet or popcorn, prizes aggregating \$175 are offered. Prizes are also offered for longest ears, the largest ears, and for the authentic record of the largest yield per acre.

In making the records uniformity of size, the shape of the ear, size, and purity will be considered.

The grower of corn will learn much from this exhibit. It is an established fact that America is the native home for the great maize family, though it has been claimed that Asia is its native habitat. From the time when the Indian squaw tended a small plot to furnish food for the Indian brave, when the weather forbade his hunting with any degree of success, great strides have been made in cultivating and developing the cereal that has often been crowned "king." Then the yield was small. Now a South Carolina grower has shown that 255 bushels can be grown on a single acre. Then it was used only for food. Now it is used in distilleries, glucose factories, sugar works, cellulose plants, cornmeal mills and corn paper

mills. Corn is one of the American farmers' most important crops and each year it adds one billion dollars to their bank accounts.

At the World's Fair corn show the farmer may derive untold benefits by comparing his methods of cultivation with that adopted by the winners of prizes. He may gain new ideas about selecting his seeds. The marvelous possibilities of scientific corn culture are just beginning to be realized, and the results obtained from Missouri's contests will be awaited with interest in the world of agriculture.

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### University and Alumni News.

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Miss Sichrist of Wisconsin, has been elected Associate Professor of Domestic Art, to fill the vacancy left by the resignation of Miss Cornelia Souther.

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Professors Price and Plumb have attended quite a number of farmer's institutes during the past month.

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Classes were dismissed a part of the week of the State Institute to allow the students to attend the meetings.

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The total number of students to date is 1772. There were about 45 that did not survive the final examinations of last term.

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E. R. Sweetland, Cornell, has been elected football coach for the coming season. Mr. Sweetland has had experience in coaching in the East. His work with the Syracuse team last year was very exceptional and he bears an excellent reputation. The prospects for a winning team next year are, therefore, very good.



Townshend Literary Society elected the following officers for the ensuing term; President, M. O. Bugby; Vice, D. W. Weist; Secretary R. C. E. Wallace; Treasurer, J. C. McNutt. The society is in a flourishing condition.

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Governor Herrick spoke at convocation, January 20. He was most enthusiastically received.

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Basket ball holds sway in athletics. The team has shown excellent form thus far having won every game, some of them with scores above 100. Oberlin was defeated, January 16, with a score of 57 to 46. Several good games are yet to come among them being Minnesota and the Carlisle Indians.

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Thos. L. Wheeler is acting as student assistant in Agronomy.

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Townshend chapter of Alpha Zeta fraternity held its annual mid-winter banquet at the Chittenden Hotel, January 14. Covers were laid for twenty-five and quite a number of the out-of-town members were present.

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Among the alumni who visited the University recently were C. W. Waid, '98, D. A. Tobias, ex-'04, E. C. Cotton, ex-'02, J. F. Cunningham, '97, G. B. White, ex-'04, Byron S. Innis, ex-'03, L. B. Palmer, ex-'05, Hon. Renick Dunlap, '95, W. R. Bales, ex-'06, C. A. Miner, ex-'05, Porter Elliot, ex-'06, W. G. Byers, ex-'02, J. D. Uncapher, ex-'01, W. H. Uncapher, ex-'99.

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C. H. Clevenger is located at Springfield, Mo., filling the chair of Professor of Mathematics and Physics at Drury College, in the absence of the regular

Professor who is on a year's leave of absence.

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V. W. Cahill is engaged in farming with his father at Tiro, Ohio. He is especially interested in stock raising.

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A. E. Case is engaged in dairy farming at Hudson, Ohio.

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Albert F. Conradi, '01, is located at the Texas Agricultural College at College Station, Texas, where he is assistant state entomologist. He writes that College Station is one of those places where there is "nothing but a first class agricultural college to feel proud of." He predicts large things for the Texas institution.

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E. O. Fippin, O. S. U. '00, of the Bureau of Soils, who is spending the winter in Georgia, was a Columbus visitor just before starting south.

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Nelson P. Neil, O. S. U. '01, who has been in the Colorado desert in southern California for a large part of the fall and winter engaged in work for the Bureau of Soils, has been recently assigned to the San Bernardino district, California.

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Miss Ida Marshall is teaching Domestic Science at Ulysses, Kansas.

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Professor F. W. Taylor, O. S. U. '00, Professor of Agriculture at the New Hampshire State College, was married during the holidays to Miss Jessie Stocker, of Gnadenuhthen, O. Mr. Taylor did the proper thing and stopped off at the University on his wedding trip

Mr. Edward L. Shaw assistant Professor of Agriculture at the New Hampshire State College also visited the University during the holidays.

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Mr. John C. Britton, O. S. U. '99, was married, December 29, to Miss Alta Engelbeck, of Lakeside, Ohio. He and Mrs. Britton were recent visitors at the University.

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M. R. Shellabarger is engaged in general farming at Union, Ohio. He is president of the West Milton Farmer's Institute.

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President Thompson addressed the State Farmer's Institute at its recent meeting on the agricultural college, its ideals and its needs. The address was a stirring one and created a great deal of comment regarding the college and its methods.

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At the meeting of the Ohio Horse Breeder's Association, held in Townshend Hall during the week of the State Institute, the class in judging gave an exhibition of their methods of judging horsess.

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The annual meeting of the Ohio Shorthorn Breeders was held in Townshend Hall on Wednesday evening, January 13. The meeting was the largest the association has ever held and the most prominent breeders of the state were present. Addresses were made by a number of persons including Professors Price and Plumb. Dr. Thompson was in attendance.

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#### General Agricultural News.

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The House of Representatives has passed a bill appropriating \$250,000 for the purpose of fighting the cotton boll

weevil which is causing such serious damage to the American cotton industry.

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In his annual message Governor Odell, of New York, explains his position in vetoing the bill for the continuance of the New York School of Forestry. He asserts that while the college followed both the spirit and the letter of the law in its work, which in regard to the management of the forest reservation of 30,000 acres was to substitute valuable timber for the worthless material on the land, the method did not meet the approval of the committee of the Assembly having the work in charge nor was it approved by many citizens of the state. He declares himself strongly in favor of the continuance of the school and of the state control of this timber land, and further he wishes the matter again brought before the legislature.

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The world's production of corn is estimated at 2830 million bushels in 1903 against 3040 million bushels in 1902.

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The short course in agriculture in Kansas this year covers a period extending from January 5 to March 25. In the live stock work much judging will be done, the different classes of animals being taken up by weeks.

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The alumni and students of the Iowa Agricultural College recently presented the famous Saddle and Sirloin Club of Chicago with a life size oil painting of Prof. Curtis of that institution.

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The Ohio Live Stock Association is a product of the recent agricultural gathering in Columbus. Its object is to "generally promote the live stock development of the state of Ohio in every

wav as effecting its educational, economic, legislative, health or other influences." O. E. Bradfute was chosen president, S. P. Bailey, vice president, C. S. Plumb, secretary-treasurer.

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There is much dissatisfaction among farmers of Ohio regarding the use of the money appropriated for the St. Louis Exposition. Almost the entire amount has been placed in a building and reserved for entertainment and salaries of officials. A movement is on foot to get money from the present legislature to be used in making an exhibit. To any sensible man the manner in which these funds have been used is anything but proper.

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The Colorado Agricultural College will erect a dairy building and institute a course in dairying. A short winter course for farmers in livestock judging and feeding will also be started.

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A feature of the Iowa winter short course was the drainage convention which has been freely advertised and which was consequently well attended. Interesting facts regarding Iowa's drainage conditions were given and profitable discussion invoked. The drainage convention is a new one.

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Considerable work has been done at the Government farm, opposite Washington, D. C. Over 400 varieties of apples and 150 sorts of peaches are now growing in the farm nursery. This nursery also contains several thousand seedling oaks, ashes and maples grown from seeds gathered from trees in the District of Columbia. A fruit plantation of one thousand trees has been established on the farm as a basis for studying the physiological action of various insecticides and fungicides. A

small typical cranberry plantation has been undertaken, while an area of some thirty acres is being prepared for an arboretum. Among other experiments being conducted on the Potomac Flats Testing Garden are the effects of shade on growing crops. As rapidly as the facilities of the department will permit truck plants grown for leaf production will be submitted to the influence of shade.

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The production of beet sugar in the United States for the season of 1903-04 is estimated at 210,000 tons.

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#### Book Reviews.

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MANUAL OF CORN JUDGING. By A. D. Shamel, formerly Crop Expert at University of Illinois, now with Bureau of Plant Industry, Department of Agriculture, Washington, D. C. Illustrated, 5x7 inches. Orange Judd Company. Price 50 cents.

This is the second edition of the Manual first published by Mr. Shamel, when in charge of the corn judging and field work at the University of Illinois. It has been thoroughly revised and brought up to date. The advanced methods of corn judging have been noted and all the available information on corn judging incorporated. The first edition was quickly exhausted and the demand for a second edition became imperative. It is especially helpful for farmers interested in improvement of corn, for corn schools, farmers' institutes, etc. The book is profusely illustrated with photographs of ears of the leading varieties of corn, desirable ears contrasted to undesirable, desirable and undesirable kernels, so that with this book and a little experience the farmer or student can pick out the best ears for seed or showing. In addition the score cards used in the corn states are given with directions for using them.





